

ABSTRACT OF THE DISCLOSURE

The present invention provides a method of preventing chronic rejection of a transplant in a recipient, comprising administering to the recipient an immunotoxin, thereby reducing the recipient's T-cell population and administering to the recipient a costimulation blocker or a combination of costimulation blockers, thereby reducing a transplant-specific antibody response. Also provided is the method of preventing chronic rejection of a transplant in a recipient, further comprising administering an immunosuppressive agent to the recipient. The present invention also provides a method of reversing a late acute rejection of an transplant in a recipient having a transplant that has survived for a prolonged period of time using the method of preventing chronic rejection, comprising monitoring the recipient for an indicator of a delayed acute rejection response and administering to the recipient showing the indicator of the acute rejection response an immunotoxin, thereby reducing the recipient's T-cell population.